

FOUR CYLINDER ENGINE WITH INTERNAL EXHAUST GAS RECIRCULATION

Abstract of the Disclosure

A four-stroke cycle, four-cylinder reciprocating internal combustion engine includes a crankshaft, four pistons, each reciprocal within a corresponding one of the cylinders. The engine also includes an intake poppet valve and an exhaust poppet valve for each cylinder, an intake camshaft for operating the intake valves, and an exhaust camshaft for operating the exhaust valves. The exhaust camshaft has primary lobes, each primary lobe normally opening the corresponding exhaust valve during an exhaust stroke of the corresponding piston. The engine also has an undivided exhaust manifold, and the exhaust camshaft has secondary lobes. Each secondary lobe opens the corresponding exhaust valve near an end of an intake stroke of the corresponding piston. As a result, a pressure pulse in the exhaust manifold causes a portion of the exhaust gases to recirculate from the exhaust manifold and into the corresponding cylinder.

Assignment

The entire right, title and interest in and to this application and all subject matter disclosed and/or claimed therein, including any and all divisions, continuations, reissues, etc., thereof are, effective as of the date of execution of this application, assigned, transferred, sold and set over by the applicant(s) named herein to Deere & Company, a Delaware corporation having offices at Moline, Illinois 61265, U.S.A., together with all rights to file, and to claim priorities in connection with, corresponding patent applications in any and all foreign countries in the name of Deere & Company or otherwise.